New England Telehealth Consortium

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Brian Thibeau, President
New England Telehealth Consortium

VIA ELECTRONIC FILING

Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: Comments in GN Docket No. 16-46; WC Docket No. 02-60

Dear Ms. Dortch:

On behalf of the New England Telehealth Consortium, ("NETC"), we appreciate the opportunity to submit these comments in response to the recent request for comments from the Federal Communications Commission ("FCC" or "Commission") concerning ways the FCC can accelerate the adoption and accessibility of broadband-enabled health care solutions. NETC's comments flow from its experience as a Rural Health Care program consortium that has successfully designed, deployed, and now operates a growing, state-of-the-art health network which facilitates the availability of affordable, high-capacity broadband service to more than 750 health care providers ("HCPs") spanning three mostly rural New England states.

In these comments NETC provides data concerning the bandwidth needs and rates of bandwidth increases among the hundreds of health care provider sites we serve. This information spans almost ten years – from when our sites were first surveyed in 2007, through today as we see bandwidth demands among our "on-net" participants growing at a rate approaching 1 Gigabit per month.

While health care is increasingly delivered from many platforms, institutional care, including specialists located primarily in urban centers, will remain the bedrock of our health system for the foreseeable future. From NETC's vantage, modern health care delivery is now entirely dependent upon data delivered via high capacity broadband. Indeed, recent news has dramatically shown that when the data is unavailable – whether due to ransomware attacks[1] or

[1] *See, e.g.*, Ryan Francis, *Ransomware makes healthcare wannacry*, CSO/IDG NEWS, May 17, 2017, http://www.csoonline.com/article/3196827/data-breach/ransomware-makes-healthcare-wannacry.html ("Around 200,000 systems have been hit by the malware WannaCry, resulting in doctors being blocked from gaining access to patient files and forcing emergency rooms to send people away.").

network outages – the delivery of health care grinds to an immediate halt. Thus, the availability of high-speed, fiber-based broadband to all health providers – from small clinics to large hospitals – is now as important as the availability of uninterrupted electrical power. Accordingly, we urge the FCC to ensure that the RHC program is comprehensively reformed and modernized to ensure it is meeting clear statutory objectives regarding access to telemedicine and advanced services that are more important today than ever.[2]

NETC Background

NETC is a not-for-profit consortium of health care providers in communities across northern New England established to develop and share electronic health information and to improve patient care throughout a shared service area. Within its service area, which encompasses the states of Maine, New Hampshire and Vermont, many health care facilities never had access to affordable quality broadband before NETC, greatly compromising the quality of care for thousands of rural residents. In November 2007, NETC became eligible to receive $24.6 million in one-time universal service support through the RHC pilot program to provide broadband connectivity capable of supporting high bandwidth healthcare applications between NETC participants. After a lengthy design and competitive bidding process involving many bidders, NETC selected eight different network vendors and became operational in late 2012.

NETC uses leased connectivity from existing broadband providers, owns redundant network cores, and operates a network operations center to ensure uninterrupted quality of service across the region, regardless of which vendor is providing the "last mile" broadband service. NETC provides private quality of service connectivity between all "on-net" participating sites, with access to the public Internet and Internet2 through large shared pipes to hubs in and around Boston. The NETC consortium thus provides its participants with operational control over a high quality, high bandwidth broadband network capable of supporting advanced telemedicine and electronic health information.

Bandwidth Requirements and Rates of Growth

In 2016, the FCC requested that all Consortium networks report on the Telehealth applications in use on each respective network. The results of NETC's detailed survey revealed that 49 of the 50 Telehealth applications listed in the FCC survey document are active and in use on the NETC network.[3]

[2] Congress, in Section 254(h)(1)(A) of the Telecommunication Act of 1996, in order to facilitate the increased use of telemedicine, mandated that telecommunications carriers provide telecommunications services for health care purposes to rural HCPs at rates that are "reasonably comparable" to rates in urban areas. In addition, in Section 254(h)(2)(A), Congress directed the Commission to promulgate rules to "enhance . . . access to advanced telecommunications and information services" to health care providers.

[3] *See* Wireline Competition Bureau Addresses Funding Year 2014 Healthcare Connect Fund Consortia Annual Reports Requirements, WC Docket No. 02-60, Public Notice, 30 FCC Rcd 9894, 9895 (Wireline Comp. Bur. 2015).

Since 2010, NETC has seen a dramatic increase in bandwidth requirements due to the growing demand of Telehealth application use among our health care providers. NETC has seen a 328% growth in installed bandwidth across the NETC network over the past six years. The average bandwidth per site has grown 550% from 20Mb to 130Mb. The median bandwidth has grown 500% from 5Mb to 30Mb. Over the past year, the bandwidth growth of the NETC network has accelerated significantly. Our projections show our health care provider bandwidth growth to exceed 1 Gigabit per month across the network. In addition, over the past two years, NETC as a consortium has grown from 315 health care providers to over 750. As healthcare becomes more and more dependent on digital data delivered over private and public networks, we expect bandwidth demands from our participating sites to continue to grow dramatically.

Conclusion

On behalf of its participating health care providers, NETC very much appreciates the efforts of the Commission and staff to gather data regarding broadband-enabled health care. We do however urge the Commission to open a rulemaking to modernize the Rural Health Care program as we and other consortium networks requested in November 2015.[4] We appreciate the attention being given to these issues and look forward to answering any questions regarding these comments.

Sincerely,

Brian Thibeau
President
New England Telehealth Consortium

Cc Radhika Karmarkar, Esq.

[4] *See* Petition for Rulemaking by Schools, Health & Libraries Broadband Coalition, California Telehealth Network, New England Telehealth Consortium, Health Information Exchange of Montana, Utah Telehealth Network, Colorado Telehealth Network, and Southwest Telehealth Access Grid Seeking Amendment of Part 54 of the Commission's Rules to Further Modernize the Rural Health Care Program, CC Docket No. 02-60 (filed Dec. 7, 2015) http://apps.fcc.gov/ecfs/comment/view?id=60001324308.